

03500.119202

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

|                              |   |                            |
|------------------------------|---|----------------------------|
| In re Application of:        | ) |                            |
|                              | : | Examiner: Unassigned       |
| TAKEAKI ITSUJI, ET AL.       | ) |                            |
|                              | : | Group Art Unit: Unassigned |
| Application No.: 10/596,825  | : |                            |
|                              | ) |                            |
| Filed: June 26, 2006         | : |                            |
|                              | ) |                            |
| For: SENSOR FOR ANALYZING OR | : |                            |
| IDENTIFYING PROPERTY OF      | ) |                            |
| OBJECT, SENSING APPARATUS    | : |                            |
| USING SAME, AND SENSING      | ) |                            |
| METHOD                       | : | June 30, 2006              |

**Mail Stop Amendment**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56 and in accordance with the practice under 37 C.F.R. §§ 1.97 and 1.98, the Examiner's attention is directed to the documents listed on the enclosed Form PTO-1449. Copies of the listed documents, other than U.S. patent documents, are also enclosed.

REMARKS

The following documents were cited in an International Search Report of the international application (PCT/JP2005/020050) corresponding to the subject application:

- (1) US 2002/0068018 A1;
- (2) US 2004/0058339 A1;
- (3) Nagel, et al., "Three dimensional polymer...";

- (4) JP-A 2001-074647 & Patent Abstracts of Japan;
- (5) DE 102 57 225 B3;
- (6) US 6,573,737 B1;
- (7) Torosyan, et al. "Application of narrowband...";
- (8) Nagel, et al., "Integrated Planar...";
- (9) Nagel, et al., "A functionalized THz sensor...";
- (10) Stewing, et al., "A new class of improved-efficiency..."; and
- (11) Baras, et al., "On-chip THz detection..."

The International Search Report is dated December 22, 2005. A copy of the International Search Report was filed in this application on June 26, 2006.

Documents (1), (2) (3), and (4) were cited in a Written Opinion of the international application corresponding to the subject application. The Written Opinion is dated December 22, 2005. A copy of the Written Opinion was filed in this application on June 26, 2006.

Applicants respectfully submit that U.S. Patent No. 6,777,244 B2 corresponds to Document (1).

#### FORMAL MATTERS

No fee is believed due; however, if any fee is due, it should be charged to Deposit Account No. 06-1205.

#### CONCLUSION

It is respectfully requested that the above information be considered by the Examiner and that a copy of the enclosed Form PTO-1449 be returned indicating that such information has been considered.

Applicants' undersigned attorney may be reached in our Washington D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

/Daniel S. Glueck/  
Daniel S. Glueck  
Attorney for Applicants  
Registration No.: 37,838

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3800  
Facsimile: (212) 218-2200

DSG/tmm

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------------|------------|--------------------------------------|---------------------------------------|
| FORM PTO 1449 (modified)<br><br>U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE<br><br>LIST OF REFERENCES CITED BY APPLICANT(S)<br>(Use several sheets if necessary)<br><br>Date Submitted: <b>June 30, 2006</b> |          |                                                                                                                                                                                                                                                                                                                               |                   | ATTY DOCKET NO.<br><b>03500.119202</b>     |            | APPLICATION NO.<br><b>10/596,825</b> |                                       |
|                                                                                                                                                                                                                             |          |                                                                                                                                                                                                                                                                                                                               |                   | APPLICANT<br><b>TAKEAKI ITSUJI, ET AL.</b> |            |                                      |                                       |
|                                                                                                                                                                                                                             |          |                                                                                                                                                                                                                                                                                                                               |                   | FILING DATE<br><b>June 26, 2006</b>        |            | GROUP<br><b>Unassigned</b>           |                                       |
| U.S. PATENT DOCUMENTS                                                                                                                                                                                                       |          |                                                                                                                                                                                                                                                                                                                               |                   |                                            |            |                                      |                                       |
| *EXAMINER<br>INITIAL                                                                                                                                                                                                        |          | DOCUMENT<br>NUMBER                                                                                                                                                                                                                                                                                                            | DATE              | NAME                                       | CLASS      | SUBCLASS                             | FILING DATE<br>IF APPROPRIATE         |
|                                                                                                                                                                                                                             |          | <b>2002/068018 A1</b>                                                                                                                                                                                                                                                                                                         | <b>06/06/2002</b> | <b>Pepper, et al.</b>                      | <b>422</b> | <b>82.05</b>                         |                                       |
|                                                                                                                                                                                                                             |          | <b>2004/058339 A1</b>                                                                                                                                                                                                                                                                                                         | <b>03/25/2004</b> | <b>Nagel, et al.</b>                       | <b>435</b> | <b>6</b>                             |                                       |
|                                                                                                                                                                                                                             |          | <b>6,573,737 B1</b>                                                                                                                                                                                                                                                                                                           | <b>06/03/2003</b> | <b>Lyon, et al.</b>                        | <b>324</b> | <b>753</b>                           |                                       |
|                                                                                                                                                                                                                             |          | <b>6,777,244 B2</b>                                                                                                                                                                                                                                                                                                           | <b>08/17/2004</b> | <b>Pepper, et al.</b>                      | <b>436</b> | <b>165</b>                           |                                       |
| FOREIGN PATENT DOCUMENTS                                                                                                                                                                                                    |          |                                                                                                                                                                                                                                                                                                                               |                   |                                            |            |                                      |                                       |
|                                                                                                                                                                                                                             |          | DOCUMENT<br>NUMBER                                                                                                                                                                                                                                                                                                            | DATE              | COUNTRY                                    | CLASS      | SUBCLASS                             | TRANSLATION<br>YES/NO/<br>OR ABSTRACT |
|                                                                                                                                                                                                                             |          | <b>2001-074647 A</b>                                                                                                                                                                                                                                                                                                          | <b>03/23/2001</b> | <b>Japan</b>                               |            |                                      | <b>See A below</b>                    |
|                                                                                                                                                                                                                             |          | <b>DE 102 57 225</b>                                                                                                                                                                                                                                                                                                          | <b>04/08/2004</b> | <b>Germany</b>                             |            |                                      | <b>No</b>                             |
| OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)                                                                                                                                                    |          |                                                                                                                                                                                                                                                                                                                               |                   |                                            |            |                                      |                                       |
|                                                                                                                                                                                                                             |          | <b>Nagel, et al., "Three-Dimensional Polymer/Metal-Based Resonators for THz-Biosensing," Infrared and Millimeter Waves, 2004 and 12<sup>th</sup> International Conference on Terahertz Electronics, 2004, Conference Digest of The 2004 Joint 29<sup>th</sup> International Conference, pp. 819-820 (September 27, 2004).</b> |                   |                                            |            |                                      |                                       |
|                                                                                                                                                                                                                             |          | <b>Nagel, et al., "Integrated Planar Terahertz Resonators for Femtomolar Sensitivity Label-Free Detection DNA Hybridization," Applied Optics, OSA, Optical Society of America, Vol. 41, No. 10, pp. 2074-2078 (April 1, 2002).</b>                                                                                            |                   |                                            |            |                                      |                                       |
|                                                                                                                                                                                                                             |          | <b>Baras, et al., "On-Chip THz Detection of Biomaterials: A Numerical Study," Journal of Biological Physics, Vol. 29, No. 2-3, pp. 187-194 (2003).</b>                                                                                                                                                                        |                   |                                            |            |                                      |                                       |
|                                                                                                                                                                                                                             |          | <b>Stewing, et al., "A New Class of Improved-Efficiency THz Filters for On-Chip Detection of Biomaterials," Microwave and Optical Technology Letters, Wiley USA, Vol. 41, No. 2, pp. 79-82 (April 20, 2004).</b>                                                                                                              |                   |                                            |            |                                      |                                       |
|                                                                                                                                                                                                                             |          | <b>Nagel, et al., "A Functionalized THz Sensor for Marker-Free DNA Analysis," Physics in Medicine and Biology IOP Publishing UK, Vol. 48, No. 2, pp. 3625-3636 (November 21, 2003).</b>                                                                                                                                       |                   |                                            |            |                                      |                                       |
|                                                                                                                                                                                                                             |          | <b>Torosyan, et al., "Application of Narrowband Tunable THz-Radiation for Biomedical Sensing," Annual Meeting of the IEEE Laser &amp; Electro-Optics Society, Vol. 1 of 2, pp. 343-344 (November 11, 2002).</b>                                                                                                               |                   |                                            |            |                                      |                                       |
|                                                                                                                                                                                                                             | <b>A</b> | <b>Patent Abstracts of Japan, Vol. 2000, No. 20, July 10, 2001 (JP-A 2001-074647, March 23, 2001).</b>                                                                                                                                                                                                                        |                   |                                            |            |                                      |                                       |
|                                                                                                                                                                                                                             |          | <b>December 22, 2005 International Search Report in PCT/JP2005/020050</b>                                                                                                                                                                                                                                                     |                   |                                            |            |                                      |                                       |
|                                                                                                                                                                                                                             |          | <b>December 22, 2005 Written Opinion in PCT/JP2005/020050</b>                                                                                                                                                                                                                                                                 |                   |                                            |            |                                      |                                       |
| EXAMINER                                                                                                                                                                                                                    |          |                                                                                                                                                                                                                                                                                                                               |                   | DATE CONSIDERED                            |            |                                      |                                       |

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 1 of 1